







Friction welding method for fixing blades on a turbine wheel of a fluid machine

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Abstract of EP0513669

The invention relates to a method of fixing blades to a rotationally symmetric blade carrier for fluid-flow machines by means of friction welding, several flat welding surfaces being provided on the periphery of the blade carrier, which welding surfaces are each welded to a flat welding surface of a blade, and the welding temperature necessary to join the bodies being obtained by pressing together the welding surfaces of blade and blade carrier by means of an upsetting force and by simultaneous translatory oscillating movement of the welding surfaces against one another. To this end, the oscillating movement is effected in a direction which lies in a plane extending essentially at right angles to the axis of the blade carrier. Furthermore, it relates to a blade for carrying out the method, a mounting fixture for friction-welding equipment for fixing blades to blade carriers, and also a friction-welding apparatus. The method has the advantage that the direction of the movement producing the heat is independent of the blade and wedge angle of the blade carrier. The number of settings which are required to set the friction-welding equipment for producing or repairing a rotor or stator is accordingly reduced.

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